**Preliminary results rapid assessment Basona livestock value chains for fluid milk, traditional butter, large and small ruminants**

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**1 Supply of inputs and services agribusinesses**

1.1 Animal feed

Animal feed is supplied by feed shops, traders, a feed processing company operated by the Union and the primary cooperatives.

Feed shops obtain their feeds (wheat bran, oil cake) from Addis and they sell to farmers for fattening and dairy.

Figure Feed shop products

Traders collect the by-products from processing of pulses from the mills they use (faba bean, lentils and grass pea). They use some themselves for fattening large ruminants, but the bulk is sold to fatteners in Nazareth). Some may be sold to farmers in the District.



Figure Faba bean, lentil and grass pea bran

The Union processing wheat into flour and produces wheat bran as a by-product (50 qt of wheat, produces 19-20 qt of bran). This wheat bran is used in their feed processing plant to produce dairy mix and a fattening mix (in the past advice was provided by FEED project). The additional ingredients (oilcake, minerals and salt) are purchased from companies in Adddis. The mixes are sold/delivered to their primary cooperatives in and outside the District. These primary cooperatives in turn sell it to their members.

Figure Separating wheat flour and wheat bran

Crop residues are sold (wheat and barley straw) but no agribusinesses seem to be involved.

1.2 Veterinary drugs/services

Veterinary drugs and services are delivered through the regular government system (District, PA level) as well as some private shops in the Debre Birhan. Some drugs are also sold to traders who sell (illegally?) in the villages.

1.3 Abattoir

An abattoir is operated by a group of qualified veterinarians. They provide services for butcheries (mainly large ruminants) and restaurants (mainly small ruminants). They charge a fee per animal – fee varies based on time of slaughter. The LMD project has provided training to the abattoir.

**2 Value chain agri businesses**

2.1 Dairy agri-businesses in and near urban centers.

Milk is collected and processed by commercial companies and privately or cooperatively owned small town processors.

Two commercial companies collect the bulk of the milk from the District – i.e. Shola and Hirut?. Shola collects the milk from urban farmers and from individual farmers along the main road (collection points). Hirut collects milk from individual farmers and 2 cooperatives (they previously delivered milk to Shola). They only buy morning milk. Some farmers offer specially treated evening milk in the morning (cold water treatment). Milk is tested.

Figure Commercial company with chilling tank

Both companies chill their milk in tanks. Shola transports the raw milk to their factory in Addis and Hirut, transports and processes the milk in the factory in the neighboring Chacha District.

The private and cooperatively owned processors buy raw milk directly from urban farmers and from collectors (employed?). They process milk – boil and ferment – and sell/serve boiled milk and ergo in their dairy kiosk/bar to urban customers – in the same compound. They also process part of the milk in table butter, which is mostly sold to hotels, restaurants. The bulk of the milk is sold raw to individuals, hotels and restaurants.

Figure Dairy bar selling boiled milk and ergo

2.2 Traditional butter agribusinesses

Village level butter traders in the District buy butter from farmers in local markets and sell to larger traders/butter shop owners in Debre Birhan - three grades of butter are used. The butter shop traders also buys butter from outside the District. The butter is sold to urban customers, hotels and restaurants. Some butter may also be sold outside the District.

2.3 Large and small ruminants’ agribusinesses

Figure Three grades of butter

Village level traders buy live animals in village markets and sell them to larger (District) traders. These larger traders also buy directly from farmers. Two types of animals are purchased i.e. animals for slaughter and animals for fattening.

Large ruminants for slaughter are mostly sold to butcheries, while small ruminants for slaughter are sold to hotels, restaurants. Some of the animals are also sold to traders from outside the District - they can buy directly from farmers and or through a local trader.

The large ruminants for fattening are mostly sold to the traders who fatten them on the byproducts they obtain from the milling pulses. The small ruminants for fattening are sold to (peri-) urban farmers for fattening.

**3 Potential livestock interventions**

Our study did not deal with producers since many studies have already been conducted by Africa RISING on production systems and communities. Based on the findings of these studies, dairy and fattening are encouraged.

Based on this rapid value chain assessment it is proposed that both dairy and fattening of large and small ruminants with improved feeding, including supplementary feeding, can be tested at farm level. Feed formulations, based on locally available crop and agribusiness by products, can be prepared. Linkages between potential producers and the feed agribusinesses, in particular with the traders who have by-products from pulses, should be made. A local feed shop or the trader may be encouraged to produce such feed with a simple feed mixer. Also the Union may be encouraged to use some of the pulses bran as an ingredient for their mixes. Furthermore, the Union may be encouraged to supply feed mixes to non-members.

While we did not look at the use of crop residues – little or no agribusiness involvement – better use of available wheat and barley straw can be tested at farm level (treatment). An interesting observation was made by one farmer (former ILRI employee) about the use of a thresher for cereals – instead of the traditional threshing with animals. The straw resulting from threshing is more palatable and less contaminated (with animal dung/urine).

Other livestock interventions which may be considered (based on diagnostic findings of the other studies), are production and service interventions aimed at decreasing calving intervals in dairy animals in urban as well as rural areas. Annual hormone assisted mass insemination campaigns with mobile teams could be tested in combination with proper feeding.

Testing of production and service interventions may take place in the PAs already selected by the Africa RISING project, however testing does not need to be limited to it. In particular production development of fluid milk for urban/peri-urban markets should be tested near (peri-) urban centers. Linkages with the identified collection/processing businesses can be made.

Since Africa RISING has a scaling out component it is suggested that scaling out of the tested interventions takes place in all appropriate locations in the District by the extension system through platform discussions, field days, videos, practical demonstrations and the creation of linkages to the relevant agribusinesses at village and District level.

These interventions should be monitored/surveyed over time through an action research program to learn, adjust and to determine effectiveness and impact on nutrition, income and gender.